

## **Renewable Energy Sector Blooms - But is Bureaucracy Holding it Back? \***

### **Introduction**

Portugal urgently needs to reduce carbon dioxide emissions and its dependence on imported fossil fuels. To this end, the Portuguese energy sector requires comprehensive reform, including through more consistent use of renewable energy solutions. Renewables are still an emerging market, with most state and EU funding still up for grabs and available to national and foreign companies willing to invest.

The attitude towards more environmentally friendly energy production has been fostered by the commitments set forth in the Kyoto Protocol on carbon dioxide emission limits. These limitations left the protocol's signatory countries with no other option but to increase their use of alternative forms of energy production. One effective tool of reducing carbon dioxide emissions is converting to renewable energy solutions as a form of generating electrical power. Further, given Portugal's position as an importer of fossil fuels, the consumption of electrical power generated by renewables is also a way of saving important financial resources.

The new limits on carbon dioxide emissions, as well as the need to promote sustainable development in the energy sector, gave rise to the EU Renewables Directive (2001/77/EC). This directive established quotas of renewable energy production for each country. For Portugal, the quota was set at 39% of all energy produced, a target which must be achieved by 2010. This does not appear to be a very ambitious goal in light of the fact that 38.5 % of Portugal's 1997 energy production derived from renewable sources. However, this was only possible because hydro power is Portugal's main source of renewable energy and 1997 was a year of heavy rainfall.

Like most other EU countries, Portugal is highly dependent on hydroelectric power, thanks to its relatively low production cost. The country thus urgently needs to find alternative sources for producing environmentally friendly power in dry years, in order to ensure that the annual 39% quota is met. To this end, some investment has been made in renewable energies such as solar and biomass power. One of the world's most advanced solar facilities (63 megawatts (MW)) is to be built in Moura, Southern Portugal. Geothermal and ocean power in the Azores are also examples, and in recent years the country has also invested significantly in wind power as an alternative source to large hydroelectric dams and fossil fuels.

### **Incentives**

These investments have been made possible by the fact that Portugal enjoys excellent conditions for the implementation of ocean, wind and solar power solutions. In addition, a consistent government policy of promoting renewable energy by supporting and subsidizing public and private institutions willing to invest in such projects and approving measures to modernize the energy sector has proved extremely important.



The key components of the government support policy on renewable energies are as follows:

- The main policy principles on the Portuguese energy industry are laid down in Government Resolution 63/2003. In terms of renewable energies, this document outlines the government's commitment to increasing the availability of renewable energy in order to reduce Portugal's dependence on imported fossil fuel energy. It also makes a positive statement on reinforcing the country's available hydro and wind stations.
- Order 394/2004 sets forth new rules on subsidies for the production of renewable electrical and thermal energy. It establishes reimbursable and non-reimbursable subsidies for projects ranging from energy production to energy use rationalization and the implementation of environmentally friendly solutions in the public transport sector (eg, electrical and gas-powered vehicles). Reflecting the urgent need to invert the existing trend, the new rules set a timeframe of 24 months to conclude eligible projects. Subsidized costs include those relating to the acquisition and installation of materials and equipment, the acquisition of land and necessary software, the construction and modification of buildings, and the cost-difference between conventional vehicles and environmentally friendly vehicles of the same nature.
- Order 400/2004 concerns the conversion of energy infrastructure and subsidies for investment projects intended to connect renewable energy production centres with the existing electrical network.
- The government has approved legislation setting forth a favourable regime for the acquisition by the public services of renewable electricity (Decree-Laws 339-C/2001 and 312/2001). Under this regime, producers may sell their energy to the national electrical operators (which must buy it) at highly competitive prices. This measure goes a long way towards fostering the use of renewable energies as a source of electricity production, as it guarantees producers that their output will be absorbed by the market.
- Decree-Law 168/99 also grants companies that produce renewable electricity various extraordinary powers usually granted to public institutions. Examples are the possibility to use public property and to request the expropriation of private property necessary to implement projected solutions.
- Tax exemptions and tax rate reductions for those investing in renewables are set forth in different statutes, such as Decree-Law 58/2001.

### **Obstacles and Licensing**

In spite of the incentives, which are clearly favourable to those willing to invest in renewable energies, the sector would experience faster development were it not for the time-consuming bureaucracy involved, especially where projects requires an environmental impact assessment. This is the case for wind farms with at least 20 turbines, or at least 10 where built in sensitive areas, as well as those sited less than two kilometres from existing wind farms.

The truth is that the bureaucratic jungle is dense, with different procedures that may potentially apply and different entities that need to be consulted in relation to each aspect and phase of the project. For instance, an investor that wishes to install a

production facility requiring construction work, state subsidies and sale of the energy produced to the public electricity provider must obtain the subsidy through one procedure, a licence for the activity through another and a licence for the construction through yet another, and must finally negotiate the sale of the energy. Given that at least four entities must be consulted or decide on different aspects of the project, the project may take a considerable time to implement.

Of the four procedures mentioned above, obtaining a licence to produce energy to sell to the public supplier is probably the most cumbersome. Before an investor can obtain a licence, it must first obtain preliminary information confirming the possibility of establishing a connection to the public distribution infrastructure. It must then request the connection and pay a guarantee of €2,500.

Concurrently, the investor must initiate the procedure to obtain authorization for the production of electrical energy. This is granted by the minister of economy or by the Directorate General of Energy, depending on whether the facility has a capacity of over or under 1 MW. Once production is authorized, the investor is given 24 to 36 months (depending on the type and size of the production facility) to obtain a construction permit from the local authorities and conclude construction. The licensing of the construction can be more or less time consuming depending on the entities that need to be consulted. It is generally carried out at the municipal level, but things get complicated where the nature of the project requires an environmental impact assessment, mainly because this involves an assessment and decision at the central level (Ministry of Environment). Once construction has finished, and before the facility can start producing energy, it must be inspected by the services of the Ministry of Economy responsible for issuing the necessary licence.

Despite the negative implications of the bureaucratic process, such inconveniences can be limited by expert advice and careful project planning. It is of the utmost importance to liaise effectively with the different public entities, providing the necessary information before the procedure actually commences and executing agreements for the implementation of investment projects. These agreements are especially important for the rapid conclusion of procedures carried out by the local authorities (possibly an investor's biggest ally). Municipalities have been strong critics of the so-called 'bureaucratic trap' and have lobbied the government to amend the licensing procedure. The main concern relates to the number of different and convoluted procedures and the diverse entities in charge of licensing such projects. There is thus considerable support for the creation of a single office capable of carrying out all the work necessary to set up renewable energy production facilities.

Once the bureaucratic hurdle has been overcome, the construction and implementation of such facilities is relatively rapid. A wind farm with 50 MW capacity, for example, can be established in less than a year.

### **Comment**

The favourable incentives have produced some results with regard to wind power. By the end of 2003 the country's wind power capacity had increased to close to 300 MW, from 150 MW in 2001. New investment projects representing 100 MW have been concluded in 2004. According to the authorities, other projects representing 500/600 MW are now in construction. If these projects are concluded, they could double Portugal's wind power capacity. These figures are still a long way from the government's 2010 targets of 3,750 MW of wind power and 9,600 MW of overall renewable energy from renewable sources, which are deemed necessary to achieve



the 39% quota. Nevertheless, the government predicts a total investment of €5 billion in renewable energy by 2010. It has also announced that a public bid for new licences shall take place before the end of the year. One example of foreign investment in this area is Spanish group Iberdrola, which recently incorporated a Portuguese company, Aeólia, with the aim of expanding its interests in Portugal's renewable energy industry.

Despite these incentives and measures, however, it will be extremely difficult to achieve the objectives if the licensing procedure is not made more flexible. Local authorities and investors are lobbying for the adoption of simpler procedures and the creation of a single office which would have the authority to handle all licensing procedures. Should this pressure produce results, Portugal may find itself at the forefront of investment in the renewables market, and thus continue its steady and profitable growth towards energy independence. Given that most of Europe and the rest of world are investing in renewables, it looks very much as though alternative energy sources will provide the power of the future.

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